

## High School and College

Naturalists encourage High School and College educators to use Shelby Bottoms as an outdoor laboratory. Permits for labs, such as AP Environmental Science, are required. Naturalists may be available to assist educators in lab facilitation. Please call the Nature Center for more information or to schedule.

## Additional Programs

Shelby Bottoms Nature Center offers a variety of on your own or naturalist led programs. Seasonal program listing is available on our website or at the nature center. Programs target a variety of age groups. Most of these programs are not available to entire groups—parents are encouraged to register children individually. Registration is required for all public programs.

### When you call to reserve a field trip, please have the following information ready

- ✓ Contact name, two phone numbers, & email
- ✓ Organization name & address
- ✓ Number and grade of students
- ✓ Date & Time, as well as alternates
- ✓ Topic
- ✓ Any information about special needs students

### Field Trip Reminders

- Call Early to schedule your trip
- All participants should dress for weather
- Maximum group size is 50
- Have one adult per 10 students
- Divide your group in advance
- Arrive on time; call if you are running late
- Programs are offered rain or shine
- Plan to picnic elsewhere in the Park

#### Hours of Operation

Tuesday, Thursday, Saturday 9 a.m. - 4 p.m.  
Wednesday, Friday 12 - 4 p.m.  
Other times by appointment  
Closed Sunday and Monday

Shelby Bottoms Greenway is open 7 days a week from daylight until dusk

#### Directions

Take I-24/65 to Shelby Avenue (Exit#49)  
Go east on Shelby (away from city) to 5th Street  
Take a right on 5th Ave to Davidson Street  
Take a left on Davidson and continue to Shelby Park  
Follow the park road along the river to the train trestle  
The Nature Center is located under the train trestle.

## Grade Level Expectation Field Trip Curriculum Correlations

### Kindergarten

Interact with the environment using their senses **GLE\* 0007.2.2**  
Distinguish between living and non-living things and observe both in the natural environment **GLE 0007.2.1**  
Compare the basic features of living things that help them survive in different environments **GLE 0007.5.1**  
Identify the Sun as the main source of Earth's heat and light energy **GLE 0007.10.1**  
Observe changes in weather during the seasons, affecting Earth and its inhabitants **GLE 0007.10.2**

### Grades 1-2

Recognizes living things are made up of smaller parts that grow and change over time **GLE 0107.1.1 & 0107.3.1**  
Observe the life cycles of plants and animals **GLE 0107.4.1 & 0207.4.1**  
Compare and identify living and non-living things **GLE 0107.2.1, 0207.2.1, & 0207.2.2**  
Discuss the basic principles of inheritance and observe these principles in plants and animals **GLE 0207.4.2**  
Examine interrelationships among plants, animals, and their environment **GLE 0207.2.3 & 0207.3.1**  
Investigate the relationship between an animal's characteristics and the features of the environment where it lives **GLE 0207.5.1**

### Grades 3-4

Categorize matter as living or non-living **GLE 0307.2.1**  
Explore competition for resources between organisms **GLE 0307.2.2**  
Observe the different stages of the life cycle of an organism **GLE 0307.4.1 & 0407.3.1**  
Analyze physical and behavioral adaptations that enable organisms to survive **GLE 0307.5.1 & 0407.5.1**  
Discuss the relationship between reproduction and the continuation of species **GLE 0407.4.1**  
Analyze the effects of changes in the environment on the stability of an ecosystem **GLE 0407.2.1**  
Study the basic parts of plants and investigate how plants produce food **GLE 0407.3.1**

### Grades 5-8

Observe how organisms interact through symbiotic, commensal, and parasitic relationships **GLE 0507.2.2**  
Investigate how plants and animals use and produce food, water, and air to sustain life **GLE 0507.2.1**  
Observe connections between human activities and natural disasters and the impact on the environment **GLE 0507.2.3**  
Create food chains using plants and animals observed to demonstrate how all living things rely on photosynthesis **GLE 0507.3.1, 0707.3.1 & 0707.3.2**  
Compare characteristics of living things that are inherited versus those resulting from interactions with the environment **GLE 0507.4.1 & 0507.4.2**  
Observe geologic features of Warner Parks and associate geologic events responsible for these features **GLE 0507.7.1**  
Examine the roles of consumers, producers, and decomposers in a biological community **GLE 0607.2.1**  
Observe energy transfer within an ecosystem **GLE 0607.2.2**  
Compare and contrast the fundamental features of sexual and asexual reproduction **GLE 0707.4.1**  
Identify characteristics used by scientists to classify organisms and use a simple key to identify specific organisms **GLE 0807.5.1 & 0807.5.2**  
Investigate physical characteristics of different groups of animals that enable them to survive in their environment **GLE 0507.5.1 & 0807.5.3**

\*Taken from Tennessee State Science Standards, 2010.

# Shelby Bottoms Nature Center Educator's Guide



## About Shelby Bottoms



**Shelby Bottoms** is a 930-acre natural park located within the floodplain of the Cumberland River. Shaped by periodic flooding, the rich environment of Shelby Bottoms can be experienced through twelve miles of trails. The special

wetland characteristics of the park attract a diverse array of plants and animals.

**Shelby Bottoms Nature Center** provides programs, exhibits, and the opportunity to learn about the natural and cultural history of the area from our naturalists. Our natural play area, "Nature Play" ignites children with creativity during outdoor play.

Educational collaborations are not limited to public and private schools. Home schools, as well as early child care, Head Start and Montessori programs are among the many groups that enrich daily curriculum with a trip to Shelby Bottoms. Joint learning and service with the School of Science and Math engages students through all ages of education

Shelby Bottoms Nature Center is a part of Metropolitan Nashville Parks and Recreation.

### Metro Parks Nature Centers' Mission

To provide quality environmental education and responsible recreation.

To help protect, preserve, restore and manage the Park ecosystem and all natural resources.

To raise awareness, foster respect and share enthusiasm for the natural environment.

## Student Programs

### Signs of the Seasons

- During this guided exploration of the Nature Center museum, garden, pond, and trails, students will identify and describe the characteristics of the four seasons, and look at how each season affects plants, animals and people. (Grades K-1)

### Living Things in Nature

- Students will observe differences between living and non-living things while exploring the forest, field, pond, stream and garden. Characteristics of plants and animals, life cycles, and basic needs of organisms will be discussed. (Grades 1-2)

### Investigating Insects

- Students will review the common characteristics of insects, identify interesting local insect species and examine how the life cycles of these creatures are linked with Nashville's environment. (Grades 2-3)

### The Green Machines- PLANTS!

- While exploring forest, field and aquatic habitats, students will investigate distinct stages in plant structure and life cycles, review plant reproductive strategies, examine pollination and pollinators and re-create the process of photosynthesis. (Grades 3-8)

### Suitable Surroundings

- Students will analyze physical and behavioral adaptations that enable organisms to survive in distinct habitats in the Park - forest, field, stream, and pond. They will also identify basic ecological concepts in these habitats such as competition, energy transfer, and life cycles. (Grades 3-8)

### What in the World is an Ecosystem?

- This inquiry-based ecosystem study allows students to work in teams gathering field data about the living and non-living components of three different ecosystems; then teams compare, contrast, and report their findings. (Grades 5-12)

### Classification 101

- Through an exploration of the various habitats surrounding the Nature Center, students will identify characteristics used by scientists to classify organisms and use a simple key to identify specific organisms. (Grades 8-12)

## Field Trip Reservations

All field trips are approximately an hour and a half long. This includes a guided visit to the pond, museum, garden, and a hike on a trail around the Nature Center to view the Cumberland River and wetlands. Shelby Bottoms Nature Center designs field trips around the Tennessee Science Curriculum Standards.

Field trips are free of charge. Field trip seasons include fall and spring. Winter field trips are offered on a limited basis. Summer field trips are also available, as a more informal introduction to the park.

We strive to deliver high quality programs. The ideal naturalist to student ration is 1; 15 but we can accommodate up to 25; 1 upon request. Only four groups may tour the grounds at one time. Our maximum group size per time slot is 50. Larger groups may be split over multiple day visits, or through a rotation that includes teacher led activities. Programs are offered rain or shine.



## Other Groups

Groups interested in educational programs are also welcome. A minimum of 10 students spanning two grades (i.e., 10 children from 3rd and 4th grades) with a maximum of 50 students must be maintained. Educators must ensure one adult chaperone to accompany every 10 students. Siblings may not accompany students during the program.

Reservations for Nature Center field trips are easy to make by calling **(615) 862-8539**.